

Remarks

Applicants respectfully request reconsideration of this application as amended herein.

Claims 19 and 20 have been rejected under 35 USC 103 as unpatentable over Bornemann in view of Guhl. Bornemann describes a flywheel based energy storage system having a vertical shaft 3 carrying four flywheels 4 disposed thereon in axially spaced relationship. The central shaft is coupled to a rotor 6 of a motor in module A. The motor has a stator 7 having slots in which armature windings are wound. The armature windings can be energized to generate a rotating magnetic field to drive the rotor 6. Guhl discloses a double-pane window having a plastic frame and two glass panes spaced apart set into the plastic frame. A vapor barrier coating is applied to the portions of the plastic frame that are exposed to the space between the glass panes to prevent plastic molecules from migrating into the space, which is filled with a dry insulating gas such as Argon or Krypton and interfering with the visual clarity through the window unit. The vapor barrier is a foil that is adhered in place, or it can be sprayed on.

Claim 19 calls for a flywheel having thin barrier coating, including a deposit of a vaporized metal, on the insulated electrical windings of the motor/generator inside the evacuated chamber of the flywheel system for minimizing degradation of the low pressure atmosphere in the housing by minimizing outgassing from the insulated windings into the housing.

The rejection of claim 19 is based on the theory that it would have been obvious to a person of ordinary skill in the art to use a vapor barrier coating as taught by Guhl on inside surfaces of the flywheel system disclosed by Bornemann. Applicants respectfully traverse this rejection for the following reasons:

1. There is no teaching in either Bornemann or Guhl of the problem that Applicants identified and solved. There is no need for visual clarity inside an enclosure of a flywheel system. A person of ordinary skill in the art does not make random selections of features from unrelated arts unless there is a clear teaching in the references of the reasons and benefits of doing so.

2. Guhl double pane window is non-analogous art to Applicants' flywheel energy storage system. There is no indication that a person of ordinary skill in the art would be lead to the double frame window art for a solution to a problem that is not taught by Guhl nor apparent from reading Bornemann.

3. Even if the person of ordinary skill in the art were on a mission to improve Bornemann, and he happened upon Guhl, there would be nothing in Guhl or Bornemann to tell him that there might be something in Guhl would be useful to incorporate in Bornemann.

4. Even if the person of ordinary skill in the art were determined to use something from Guhl in his modification of Bornemann, despite the absence of any teaching or suggestion in either reference that there might be something in Guhl that could be useful in Bornemann, and the person of ordinary skill in the art decided to use Guhl's vapor barrier in Bornemann, there is nothing in either reference to teach him to apply the vapor barrier on the electrical windings of Bornemann's motor/generator.

5. Even if the person of ordinary skill in the art decided to use Guhl's vapor barrier on Bornemann's motor/generator windings, despite the absence of any teaching or suggestion in either reference to do so, the resulting combination would still not meet the limitations of the claim because the person of ordinary skill in the art would apply the barrier coating as taught by Guhl, namely, by adhering a foil or spraying on a coating, not by depositing a metal vapor onto the windings.

Thus, Applicants believe that the combination of Bornemann and Guhl was motivated and based entirely on the teachings in Applicants' specification and not by the teachings of the references themselves. Accordingly, Applicants believe that the rejection based on these references is unfounded, and claim 19, and dependent claim 20 should be allowed.

Accordingly, Applicants believe that the claims now pending in this application are patentable over the references cited against them. If the Examiner, after reconsidering this application in view of these remarks, concurs with Applicants that these claims do indeed constitute a patentable improvement to the art, Applicants believe it would be appropriate to pass this application to issue.

542 SW 298th Street
Federal Way, WA 98023
Telephone: (253) 941-7683
FAX: (253) 941-3623

Respectfully submitted,



J. Michael Neary, Reg. No. 25,453
Attorney for Applicants